



# **Grade 4 Mathematics**

***Constructed Response  
Scoring Guides  
Winter 2000***



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**Winter 2000 Grade 4  
MEAP Mathematics Scoring Guides**

These scoring guides and annotated papers are provided to help you evaluate and score the constructed-response items on the Winter 2000 MEAP mathematics test. For each item a rubric and an exemplar answer are given. Student papers are provided to illustrate the rubric. The annotations are on a separate page, so that the student papers can be copied and scored as part of training.

The scoring guides provided here represent only one possibility. You may decide to create your own scoring rubric. You may want to require that spelling and grammar are part of scoring, as well as labeling (units and graphs), and showing all work. Feel free to adjust and revise the scoring guide to fit your needs.

**General Recommendations and Guidelines**

- Studying the sample student responses and annotations will help you understand the essence of what is expected at each score point for a particular question. Keep in mind that these sample student responses represent only a few of the many possible responses for a given score point.
- To ensure the accuracy and consistency of your scoring:
  1. Continually review the scoring rubric and the sample student papers, especially when you are in doubt about a particular response.
  2. Do not judge one student's paper against another. Instead, apply the same objective criteria to each paper by evaluating the response in terms of the scoring guide.
  3. It is advisable to conceal student names when scoring.
  4. Review papers you scored earlier in the process to make sure you are using the same criteria.

## Grade 4 - Favorite Fast Foods Scoring Rubric

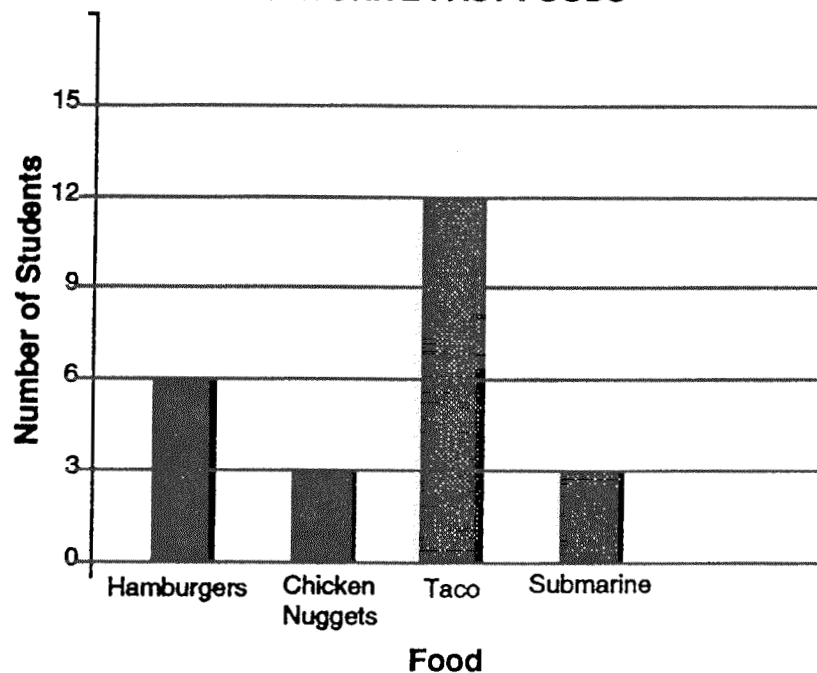
- 4 POINTS** Response contains correct tally, frequency chart, graph and conclusion.
- 3 POINTS** Response is mostly correct but contains a minor error.
- OR** Response contains a counting error in the table; graph matches table; correct conclusion.
- 2 POINTS** Response contains the beginning of an appropriate strategy with a correct table and graph but an incorrect conclusion. Student needs more instruction in order to draw a valid conclusion.
- 1 POINT** Response is mostly incorrect but student has attempted a strategy and shows minimal understanding of the concept; frequency table and graph contain counting errors and conclusion shows minimal understanding of surveys and graphs.
- OR** Response contains correct table and graph but omits conclusion.
- 0 POINTS** Response demonstrates no strategy nor understanding of surveys and graphs; frequency table and graph contain major errors and conclusion might simply restate the problem.

**Note:** If response contains counting error(s) in table with same error(s) reflected in graph, student is penalized once only for error(s) in table.

## Grade 4 - Favorite Fast Foods Exemplar

**FAVORITE FAST FOODS**

Food	Tally	Frequency
Hamburger	<del>    </del> /	6
Chicken Nuggets	///	3
Taco	<del>    </del> <del>    </del> //	12
Submarine	///	3

**FAVORITE FAST FOODS**

The conclusion should rank the foods or note that tacos were the favorite food and chicken nuggets and submarines were tied for least liked foods. The students should not simply reiterate the frequencies. The conclusion should show they can interpret the results of a survey and a graph.

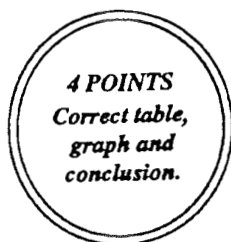
Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

The table below shows the results of a fourth grade survey on favorite fast foods. Complete the tally and frequency table.

### FAVORITE FAST FOODS

Name	Favorite	Name	Favorite	Name	Favorite
Lavonne	Hamburger	Dylan	Taco	Mike	Chicken Nuggets
Yousif	Taco	Latasha	Submarine	Timmy	Submarine
Kenya	Taco	Crystal	Taco	Tiffany	Chicken Nuggets
Jennifer	Hamburger	Rande	Taco	Rudolph	Chicken Nuggets
Amber	Taco	Billy	Hamburger	Samir	Taco
Faith	Hamburger	Mary	Taco	Teddy	Submarine
Betsy	Taco	Kansas	Hamburger	Catherine	Taco
Jeff	Hamburger	David	Taco	Kristen	Taco

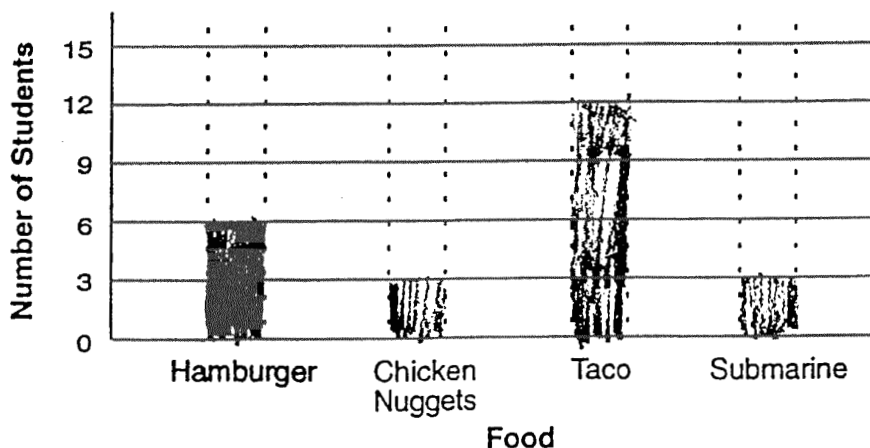
### FAVORITE FAST FOODS



Food	Tally	Frequency
Hamburger		6
Chicken Nuggets		3
Taco		12
Submarine		3

Use the frequency table to complete the bar graph and write a conclusion about the survey results.

### FAVORITE FAST FOODS



My conclusion My conclusion is 12 kids liked the taco so its number one, hamburgers were second, and chicken nuggets and a submarine are tied.

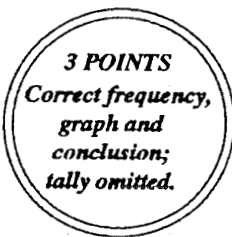
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Jennifer	Hamburger	Rande	Taco	Rudolph	Chicken Nuggets
Amber	Taco	Billy	Hamburger	Samir	Taco
Faith	Hamburger	Mary	Taco	Teddy	Submarine
Betsy	Taco	Kansas	Hamburger	Catherine	Taco
Jeff	Hamburger	David	Taco	Kristen	Taco

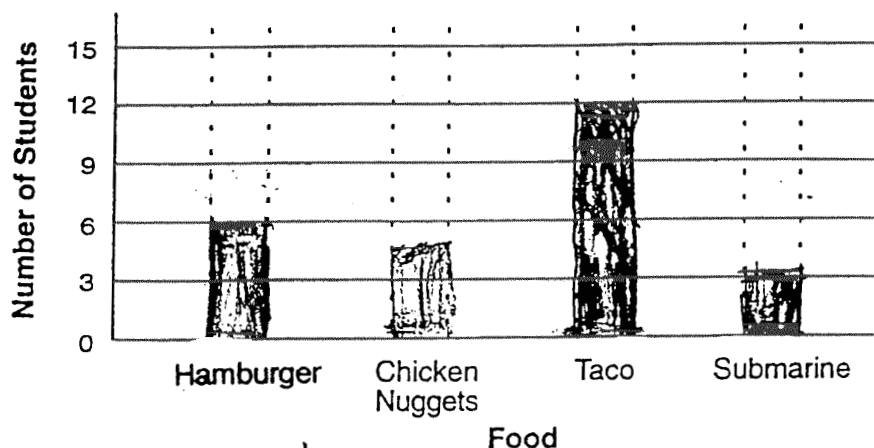
### FAVORITE FAST FOODS



Food	Tally	Frequency
Hamburger	6	
Chicken Nuggets	3	
Taco	12	
Submarine	3	

Use the frequency table to complete the bar graph and write a conclusion about the survey results.

### FAVORITE FAST FOODS



My conclusion Half of the class like Taco



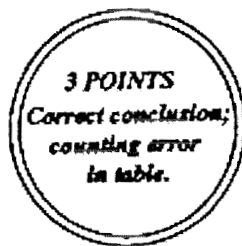
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Jennifer	Hamburger	Rande	Taco	Rudolph	Chicken Nuggets
Amber	Taco	Billy	Hamburger	Samir	Taco
Faith	Hamburger	Mary	Taco	Teddy	Submarine
Betsy	Taco	Kansas	Hamburger	Catherine	Taco
Jeff	Hamburger	David	Taco	Kristen	Taco

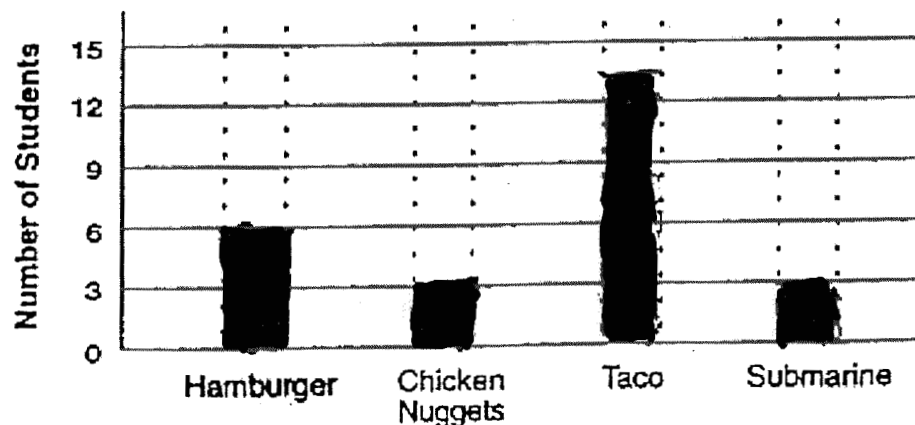
### FAVORITE FAST FOODS



Food	Tally	Frequency
Hamburger	<del>    </del>	6
Chicken Nuggets		3
Taco	<del>    </del>	13
Submarine		3

Use the frequency table to complete the bar graph and write a conclusion about the survey results.

### FAVORITE FAST FOODS



My conclusion Taco is most popular  
in class.

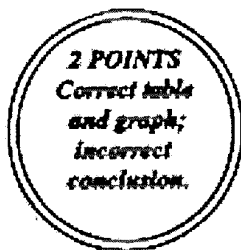
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Jeff	Hamburger	David	Taco	Kristen	Taco

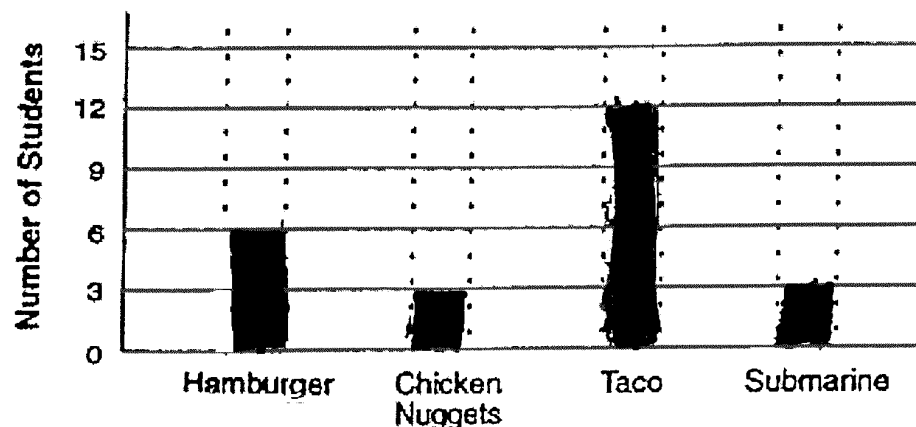
### FAVORITE FAST FOODS



Food	Tally	Frequency
Hamburger		6
Chicken Nuggets		3
Taco		12
Submarine		3

Use the frequency table to complete the bar graph and write a conclusion about the survey results.

### FAVORITE FAST FOODS



My conclusion More people like hamburgers  
then any thing else

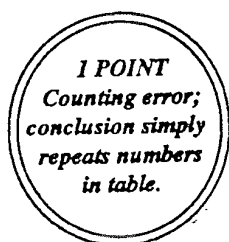
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Amber	Taco	Billy	Hamburger	Samir	Taco
Faith	Hamburger	Mary	Taco	Teddy	Submarine
Betsy	Taco	Kansas	Hamburger	Catherine	Taco
Jeff	Hamburger	David	Taco	Kristen	Taco

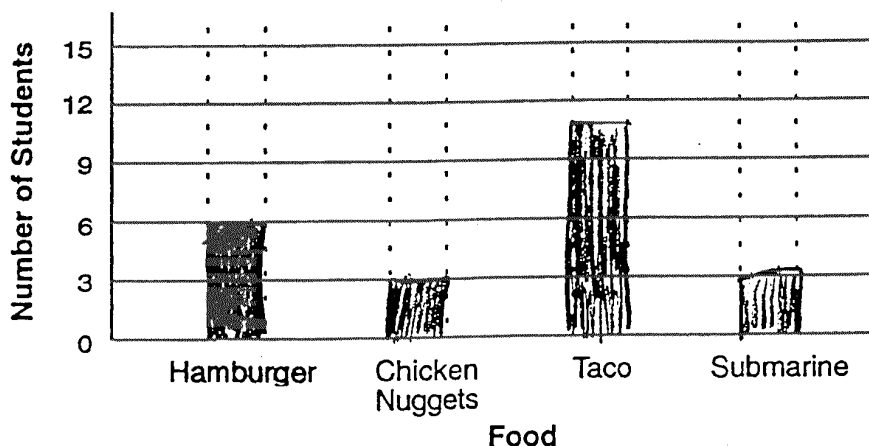
### FAVORITE FAST FOODS



Food	Tally	Frequency
Hamburger		6
Chicken Nuggets		3
Taco		11
Submarine		3

Use the frequency table to complete the bar graph and write a conclusion about the survey results.

### FAVORITE FAST FOODS



My conclusion 6 like Hamburger 3 like Chicken nuggets  
11 like Taco 3 like Submarine

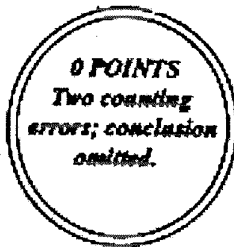
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Amber	Taco	Billy	Hamburger	Samir	Taco
Faith	Hamburger	Mary	Taco	Teddy	Submarine
Betsy	Taco	Kansas	Hamburger	Catherine	Taco
Jeff	Hamburger	David	Taco	Kristen	Taco

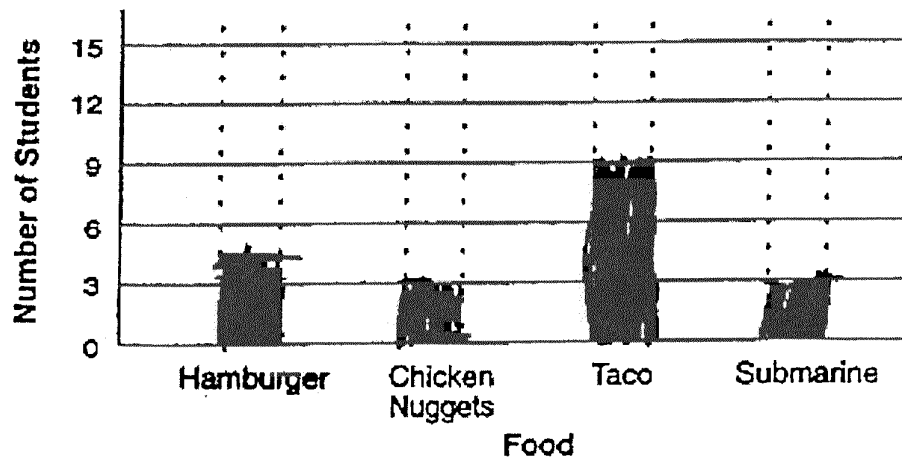
### FAVORITE FAST FOODS



Food	Tally	Frequency
Hamburger		4
Chicken Nuggets		3
Taco		5
Submarine		3

Use the frequency table to complete the bar graph and write a conclusion about the survey results.

### FAVORITE FAST FOODS



My conclusion \_\_\_\_\_

## Grade 4 - Charity's Schedule Scoring Rubric

- 4 POINTS** Response includes all activities listed in table; makes sensible use of time. Time adds up to 5 hours 30 minutes. Number of minutes in first column matches time stated in second column. Times are consecutive.
- 3 POINTS** Response is complete and shows significant understanding of time but contains minor errors.
- 2 POINTS** Response is complete and shows some understanding of time but contains some errors requiring instruction prior to being able to complete the chart correctly.
- 1 POINT** Response shows minimal understanding of time and contains serious errors requiring significant instruction prior to being able to complete the chart correctly.
- 0 POINTS** Response shows no understanding of time.

## Grade 4 - Charity's Schedule Exemplar

Response must include all activities listed in the table and make sensible use of time. The time must add up to 5 hours 30 minutes. The number of minutes in the first column (Length) must match the time stated in the second column (Time). The times must be consecutive. There are many correct answers. Here is one example.

**CHARITY'S SCHEDULE**

<b>Length</b>	<b>Time</b>	<b>Activity</b>
1 hour	7:00-8:00 a.m.	Get ready for school
15 minutes	8:00-8:15 a.m.	Travel to school
7 hours	8:15 a.m.-3:15 p.m.	At school
15 minutes	3:15-3:30 p.m.	Travel home
30 minutes	3:30-4:00	Snack
1 hour	4:00-5:00	Homework
30 minutes	5:00-5:30	Chores
30 minutes	5:30-6:00	Time with friends
30 minutes	6:00-6:30	Dinner
30 minutes	6:30-7:00	Computer games
1 hr 30 min	7:00-8:30	Television viewing
30 minutes	8:30-9:00	Get ready for bed
	9:00 p.m.	Bedtime

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Charity arrives home from school at 3:30 p.m. She must plan a schedule of her after school activities. She wants to complete the following activities before she goes to bed at 9:00 p.m.

**Charity's Activities**

Snack  
Homework  
Chores  
Time With Friends  
Dinner  
Computer Games  
Television Viewing  
Get Ready for Bed

**4 POINTS**  
Correct schedule;  
makes sensible use  
of time.

Help Charity by making a time schedule she could use.

Complete the chart by showing the activity, the time of the activity and the length of time she should spend on each activity.

**CHARITY'S SCHEDULE**

Length	Time	Activity
1 hour	7:00 - 8:00 a.m.	Get ready for school
15 minutes	8:00 - 8:15 a.m.	Travel to school
7 hours	8:15 a.m. - 3:15 p.m.	At school
15 minutes	3:15 - 3:30 p.m.	Travel home
30 minutes	3:30 - 4:00	snack
1 hour	4:00 - 5:00	Homework
30 minutes	5:00 - 5:30	chores
30 minutes	5:30 - 6:00	time with friends
30 minutes	6:00 - 6:30	Dinner
30 minutes	6:30 - 7:00	Computer games
1 hour 30 min	7:00 - 8:30	Television viewing
30 minutes	8:30 - 9:00	Get ready for bed
	9:00 p.m.	Bedtime

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Charity arrives home from school at 3:30 p.m. She must plan a schedule of her after school activities. She wants to complete the following activities before she goes to bed at 9:00 p.m.

### Charity's Activities

Snack  
Homework  
Chores  
Time With Friends  
Dinner  
Computer Games  
Television Viewing  
Get Ready for Bed



Help Charity by making a time schedule she could use.

Complete the chart by showing the activity, the time of the activity and the length of time she should spend on each activity.

### CHARITY'S SCHEDULE

Length	Time	Activity
1 hour	7:00 - 8:00 a.m.	Get ready for school
15 minutes	8:00 - 8:15 a.m.	Travel to school
7 hours	8:15 a.m. - 3:15 p.m.	At school
15 minutes	3:15 - 3:30 p.m.	Travel home
30 minutes	3:30 4:00	snack
1 hour	4:00 5:00	home work
30 minutes	5:00 5:30	chores
20 minutes	5:30 6:00	time with friends
1 hour	6:00 7:00	dinner
30 minutes	7:00 7:30	computer games
1 hour 30 min	7:30 8:30	television view
30 minutes	8:30 9:00	Get ready for bed
	9:00 p.m.	Bedtime



Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Charity arrives home from school at 3:30 p.m. She must plan a schedule of her after school activities. She wants to complete the following activities before she goes to bed at 9:00 p.m.

### Charity's Activities

Snack  
Homework  
Chores  
Time With Friends  
Dinner  
Computer Games  
Television Viewing  
Get Ready for Bed

**2 POINTS**  
Three time lengths  
incorrect, requiring  
some instruction to  
complete chart  
correctly.

Help Charity by making a time schedule she could use.

Complete the chart by showing the activity, the time of the activity and the length of time she should spend on each activity.

### CHARITY'S SCHEDULE

Length	Time	Activity
1 hour	7:00 - 8:00 a.m.	Get ready for school
15 minutes	8:00 - 8:15 a.m.	Travel to school
7 hours	8:15 a.m. - 3:15 p.m.	At school
15 minutes	3:15 - 3:30 p.m.	Travel home
30 min	3:30 - 4:00	Snack
30 min	4:00 - 4:30	Homework
1 hour 30 min	4:30 - 5:00	Chores
1 hour 30 min	5:00 - 6:30	Time With Friends
1 hour 30 min	6:30 - 7:00	Dinner
1 hour 30 min	7:00 - 7:30	computer games
1 hour	7:30 - 8:30	Television Viewing
1 hour 30 min	8:30 - 9:00	Get ready for bed
	9:00 p.m.	Bedtime

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Charity arrives home from school at 3:30 p.m. She must plan a schedule of her after school activities. She wants to complete the following activities before she goes to bed at 9:00 p.m.

### Charity's Activities

- Snack
- Homework
- Chores
- Time With Friends
- Dinner
- Computer Games
- Television Viewing
- Get Ready for Bed

**2 POINTS**  
Minors errors in  
Time column; skips  
5 minutes 3 times;  
one error in  
Length column.

Help Charity by making a time schedule she could use.

Complete the chart by showing the activity, the time of the activity and the length of time she should spend on each activity.

### CHARITY'S SCHEDULE

Length	Time	Activity
1 hour	7:00 - 8:00 a.m.	Get ready for school
15 minutes	8:00 - 8:15 a.m.	Travel to school
7 hours	8:15 a.m. - 3:15 p.m.	At school
15 minutes	3:15 - 3:30 p.m.	Travel home
10 minutes	3:45 - 3:55	Snack
1 hour	4:00 - 5:00	Homework
30 minutes	5:00 - 5:30	Chores
1 hour	5:30 - 6:30	friends
30 minutes	6:30 - 7:00	dinner
15 minutes	7:00 - 7:15	computer
1 hour	7:15 - 8:30	television
25 minutes	8:30 - 8:55	Get Ready
<del>15 minutes</del>	9:00 p.m.	Bedtime

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Charity arrives home from school at 3:30 p.m. She must plan a schedule of her after school activities. She wants to complete the following activities before she goes to bed at 9:00 p.m.

**Charity's Activities**

Snack  
Homework  
Chores  
Time With Friends  
Dinner  
Computer Games  
Television Viewing  
Get Ready for Bed

**1 POINT**  
*Does not show  
time as modeled; first  
and second columns  
do not match.*

Help Charity by making a time schedule she could use.

Complete the chart by showing the activity, the time of the activity and the length of time she should spend on each activity.

**CHARITY'S SCHEDULE**

Length	Time	Activity
1 hour	7:00 - 8:00 a.m.	Get ready for school
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7 hours	8:15 a.m. - 3:15 p.m.	At school
15 minutes	3:15 - 3:30 p.m.	Travel home
30 min	4:00	snack
30 min	4:30	homework
1 hour	5:00	chores
1 hour	6:00	Time with friend
30 min	6:30	Dinner
1 hour	7:00	computer game
30 min	7:30	Television view
1 hour	8:30	get ready for bed
	9:00 p.m.	Bedtime

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Charity arrives home from school at 3:30 p.m. She must plan a schedule of her after school activities. She wants to complete the following activities before she goes to bed at 9:00 p.m.

### Charity's Activities

Snack  
Homework  
Chores  
Time With Friends  
Dinner  
Computer Games  
Television Viewing  
Get Ready for Bed

0 POINTS  
Serious errors  
in first and second  
columns; does not  
list times  
consecutively.

Help Charity by making a time schedule she could use.

Complete the chart by showing the activity, the time of the activity and the length of time she should spend on each activity.

### CHARITY'S SCHEDULE

Length	Time	Activity
1 hour	7:00 - 8:00 a.m.	Get ready for school
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15 minutes	3:15 - 3:30 p.m.	Travel home
15 minutes	4:00 - 4:15	Snack
30 min	5:00 - 5:30	Home work
1 hour	6:00	Chores
3 min	7:00 - 8:00	Time with friends
3 min	8:30 - 9:00	Dinner
15 min	10:00 - 10:30	Comp Games
15 min	11:00 - 11:30	TV
	12:00 - 12:30	Get ready for bed
	9:00 p.m.	Bedtime